

CLAIMS:

1. A coupling device for converting a below-ground potable water well installation to an above-ground installation, the device comprising;

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- a housing having a first end region to engage an upper end of a below-ground well casing and a second end region to engage a lower end of a well casing extension;

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- gasket means located adjacent the first and second openings for sealing the respective connections between the housing, the below-ground well casing and the well casing extension; and

-a central region including a passage to receive a well line adaptor there between.

2. A device as defined in claim 1, the gasket means further comprising a first seating surface to seat the upper end of the well casing and a second seating surface to seat the lower end of the well casing extension

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3. A device as defined in claim 1 wherein the first end region includes a first opening which is dimensioned to receive the upper end of the below-ground well casing and the second end region has an opening which is dimensioned to receive the lower end of the well casing extension.

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4. A device as defined in claim 1 wherein the first end region is arranged to extend into the upper end of the below-ground well casing and the second end region has an opening which is dimensioned to receive the lower end of the well casing extension.

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5. A device as defined in claim 1 wherein the first and second end regions are arranged to extend into both the upper end of the below-ground well casing and the lower end of the well casing extension.

6. A device as defined in claim 3 wherein the gasket means includes a passage which is aligned with the passage in the housing to receive the well line adaptor.
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7. A device as defined in claim 3 wherein the gasket means includes a gasket sleeve which extends from a region near the first end to a region near the second end.
8. A device as defined in claim 7 wherein the gasket sleeve is a one piece member.
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9. A device as defined in claim 8 wherein the housing includes a gasket receiving region and a plurality of locating formations to locate the gasket sleeve therein.
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10. A device as defined in claim 9 wherein the housing includes a gasket receiving chamber of an increased diameter relative to the diameters of the first and second openings.
11. A device as defined in claim 10 wherein the housing is formed from a one piece member.
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12. A device as defined in claim 11 wherein the housing has an expanded central portion with a diameter sufficient to accommodate the lower and upper ends together with the gasket member there between, wherein the upper and lower regions of the gasket receiving chamber include annular surfaces which are separated by a distance sufficient for the gasket sleeve to fit there between.
13. A device as defined in claim 8 wherein the gasket further includes a first inner surface region which is radially inwardly tapered from first the opening toward the first seating surface and a second inner surface region which is radially inwardly tapered from the second opening toward the second seating surface.
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14. A device as defined in claim 13 wherein the gasket further comprises a pair cylindrical seating regions, each of which neighbouring a corresponding seating surface.

15. A device as defined in claim 14 wherein the expansion regions are adjacent the first and second inner regions or the pair of cylindrical seating regions or both.

16. A method for converting a below-ground potable water well installation to an above-ground installation,
5 the below-ground installation being of the type having a well casing with an upper end positioned below the ground surface and located within a well chamber, comprising the steps of:

a) accessing the well chamber and opening the upper end of the well casing;

10 b) accessing a well pump line in the well casing which is connected, by a fluid joint, with a water supply line extending into the pump chamber from a neighbouring water delivery location;

c) disconnecting the joint and isolating the well pump line;

15 d) providing a coupling member, having:

- a housing having a first opening to receive the upper end and a second opening to receive a lower end of a well casing extension;

20 - a gasket arrangement for sealing the connection between the housing and the upper end and the connection between the housing and the lower end;

- a first seating surface to seat the upper end and a second seating surface to seat the lower end; and a passage to receive a well line adaptor there between, the seating surfaces being separated
25 by a predetermined spacing;

e) preparing the upper end for engagement with the coupling member;

f) orienting the first opening of the coupling member to a position adjacent the upper end and positioning the housing on the upper end to bring the upper end against the first seating surface;

g) installing a pump line adaptor through a passage formed in the coupling member;

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h) installing the water supply line to the pump line adaptor;

i) selecting a well casing extension member of a length which, when added to the predetermined spacing between the seating surfaces in the coupling member, will extend above the ground surface;

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j) orienting the lower end of the well casing extension adjacent the second opening and positioning the lower end in the second opening to bring the lower end against the second seating surface;

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k) filling the well chamber with a suitable filling material around the coupling and the well casing extension member; and

l) installing the well pump line to the well pipe adaptor.

17. A method as defined in claim 13 wherein a pump is attached to a lower end of the well pump line and step

20 c) includes the step of pulling the well pump line and the pump from the well casing.

18. A potable water well installation, comprising a below-ground well casing member, an above-ground well

casing extension member and a well pipe extension coupler joining them, the coupler having a pair of

opposed openings to receive respective adjacent ends of the well casing and well casing extension

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members, the coupler further comprising a passage and a well pipe adaptor extending through the passage,

the adaptor having an upstream end in fluid communication with a down well pump and a downstream end

in fluid communication with a water supply pipe.

19. A coupling device for converting a below-ground potable water well installation to an above-ground
installation, the device comprising a housing having a pair of openings, one to receive a below-ground well
casing and another to receive a lower end of a well casing extension; the housing having an outer wall with
an expanded central region to provide the central region with a diameter which is larger than the diameters
of each of said openings, the central region being bordered by a pair of annular abutments between which is
located a one piece gasket sleeve, the gasket sleeve having an inner passage which is coaxial with the pair
of openings and which is arranged to seal each end of the well casing end with the well casing extension,
the inner passage of gasket sleeve having a pair of annular seating surfaces to locate each of the two ends in
their fully engaged positions within the gasket sleeve, the annular seating surfaces being separated by a
central region, a passage through the gasket in the central region and the outer wall of the housing to
receive a well pipe connection adaptor therein, the inner passage having pair of tapered portions, each of
which is tapered inwardly from each opening toward each seating surfaces and a pair of second non-
tapered portions, each of the second non-tapered portions being located between a first portion and a
seating surface.

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